

6CB5-A

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BEAM POWER TUBE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC)	6.3 ± 10%	volts
Current	2.5	amp

Direct Interelectrode Capacitances (Approx.):°

Grid No.1 to plate	0.4	μμf
Grid No.1 to cathode & grid No.3, grid No.2, and heater	22	μμf
Plate to cathode & grid No.3, grid No.2, and heater	10	μμf

Characteristics, Class A_1 Amplifier:

Plate Voltage	75	175	volts
Grid-No.2 Voltage	150	175	volts
Grid-No.1 Voltage	0	-30	volts
Mu-Factor, Grid No.2 to Grid No.1	-	3.8	
Plate Resistance (Approx.)	-	5000	ohms
Transconductance	-	8800	μmhos
Plate Current	460*	90	ma
Grid-No.2 Current	42*	6	ma
Grid-No.1 Voltage (Approx.) for plate ma. = 1	-	-60	volts

Mechanical:

Operating Position	Any
Maximum Overall Length	5"
Seated Length	4-1/4" ± 3/16"
Maximum Diameter	1-23/32"
Bulb	T12
Cap	Small (JEDEC No.C1-1)
Base	Short Jumbo-Shell Octal 8-Pin with External Barriers (JEDEC Group 1, No.B8-71), or Short Medium-Shell Octal 8-Pin with External Barriers, Style B (JEDEC Group 1, No.B8-118)
Basing Designation for BOTTOM VIEW	8GD

Pin 1 - Grid No.2
Pin 2 - Heater
Pin 3 - Cathode, Grid No.3
Pin 4 - Grid No.1
Pin 5 - Grid No.1
Pin 6 - Cathode, Grid No.3
Pin 7 - Heater
Pin 8 - Grid No.2
Cap - Plate

HORIZONTAL-DEFLECTION AMPLIFIER

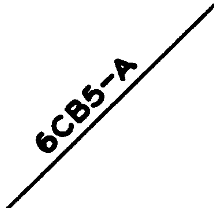
Maximum Ratings, *Design-Maximum Values:*

For operation in a 525-line, 30-frame system□

DC (Including boost) PLATE VOLTAGE	880	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE*	6800	max.	volts

← Indicates a change.

ELECTRON TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY





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PEAK NEGATIVE-PULSE PLATE VOLTAGE . . .	1650	max.	volts
DC GRID-No.2 (SCREEN-GRID) VOLTAGE. . .	220	max.	volts
DC GRID-No.1 (CONTROL-GRID) VOLTAGE . .	-55	max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 VOLTAGE .	220	max.	volts
CATHODE CURRENT:			
Peak.	850	max.	ma
DC.	240	max.	ma
GRID-No.2 INPUT	4	max.	watts
PLATE DISSIPATION†.	26	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200▲	max.	volts
BULB TEMPERATURE (At hottest point on bulb surface).	220	max.	°C

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:			
For grid-resistor-bias operation. . .	0.47	max.	megohm

○ Without external shield.

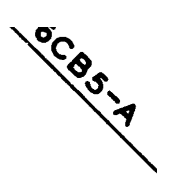
* These values can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

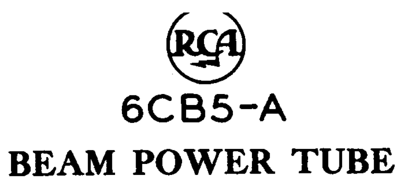
□ As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

The duration of the voltage pulse must not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

† An adequate bias resistor or other means is required to protect the tube in the absence of excitation.

▲ The dc component must not exceed 100 volts.





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1 9/16" MAX.

SMALL CAP
JETEC № C1-1

T12 BULB

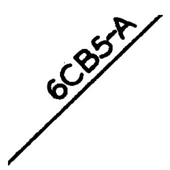
4 1/4"
± 3/16"

5"
MAX.

SHORT
JUMBO-SHELL
OCTAL 8-PIN BASE
WITH
EXTERNAL BARRIERS
JETEC № B8-71
OR
SHORT
MEDIUM-SHELL
OCTAL 8-PIN BASE
WITH
EXTERNAL BARRIERS
STYLE B
JETEC № B8-118

1 23/32" MAX.

92CS-8988R1





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AVERAGE CHARACTERISTICS

E_f = 6.3 VOLTS
GRID-№1 VOLTS = 0

GRID-№2 MILLIAMPERES (I_{C2})
200 150 100 50

GRID-№2 VOLTS E_{C2}=100
E_{C2}=175 150 125 75 50
I_b
I_{C2}
E_{C2}=175 150 125 100

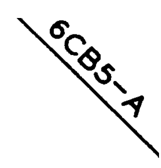
PLATE VOLTS
0 100 200 300 400 500

PLATE MILLIAMPERES (I_b)
700 600 500 400 300 200 100 0

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92CM-8437R1





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AVERAGE CHARACTERISTICS

E_f = 6.3 VOLTS
GRID-No2 VOLTS = 150

GRID-No2 MILLIAMPERES (I_{C2})

200 150 100 50

E_{C1}=+5 GRID-No1 VOLTS E_{C1}=0 -5 -10 -15 -25 -40

I_b I_{C2}

E_{C1}=+5 0 -5 -10

PLATE VOLTS

0 100 200 300 400 500

700 600 500 400 300 200 100 0

PLATE MILLIAMPERES (I_b)

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92CM-8436